



Human Factors

research and technology division



Human Information Processing Research Branch (IHH)

The Human Information Processing Research Branch (Code IHH) conducts research and develops computational models of human perceptual and cognitive processes to enhance our understanding of human performance in complex aerospace systems.

The work of the Branch includes:

- (a) Experimental and theoretical analysis of vision, hearing, haptic perception, attention, and motor control
- (b) Computational modeling of multi modal human perceptual and cognitive processes
- (c) The development of virtual reality displays and virtual environments
- (d) The development of cockpit interface and display engineering software tools based on cognitive and perceptual models
- (e) Advanced human-computer interfaces, such as intelligent interfaces that recognize human gestures and use bio-electric signals for control
- (f) Studies and models of human perceptual and behavioral adaptations to unusual environments
- (g) Studies and models of human psychophysiological responses to stressful environments.

Knowledge and technologies developed by the Human Information Processing Research Branch directly impact the safe and efficient operation of current and future aerospace systems.

Research Focus Areas:

- Human Perception and Performance:
- Measurement, Analysis, and Models
- Sensory-motor and Psychophysiological Adaptation
- Multi-Sensory Display Interactions and Virtual Environments
- Oculometric Analyses and Applications

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